# City of Scottsdale


## 2003

## SUPPLEMENTAL STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

## 2100 Series
## General Information



## 2200 Series
## Street Information



## 2200 Series
## Street Information Cont'd



## 2300 Series
## Water Information



NOTE: * - Indicates New Or Revised Details For 2003 Supplement.

REVISED 8/11/03

## 2300 Series
## Water Information Cont'd



## 2400 Series
## Sanitary Sewer Information



## 2500 Series
## Irrigation & Storm Drain Information



## 2600 Series
## Landscape Information



## 2600 Series
## Landscape Information

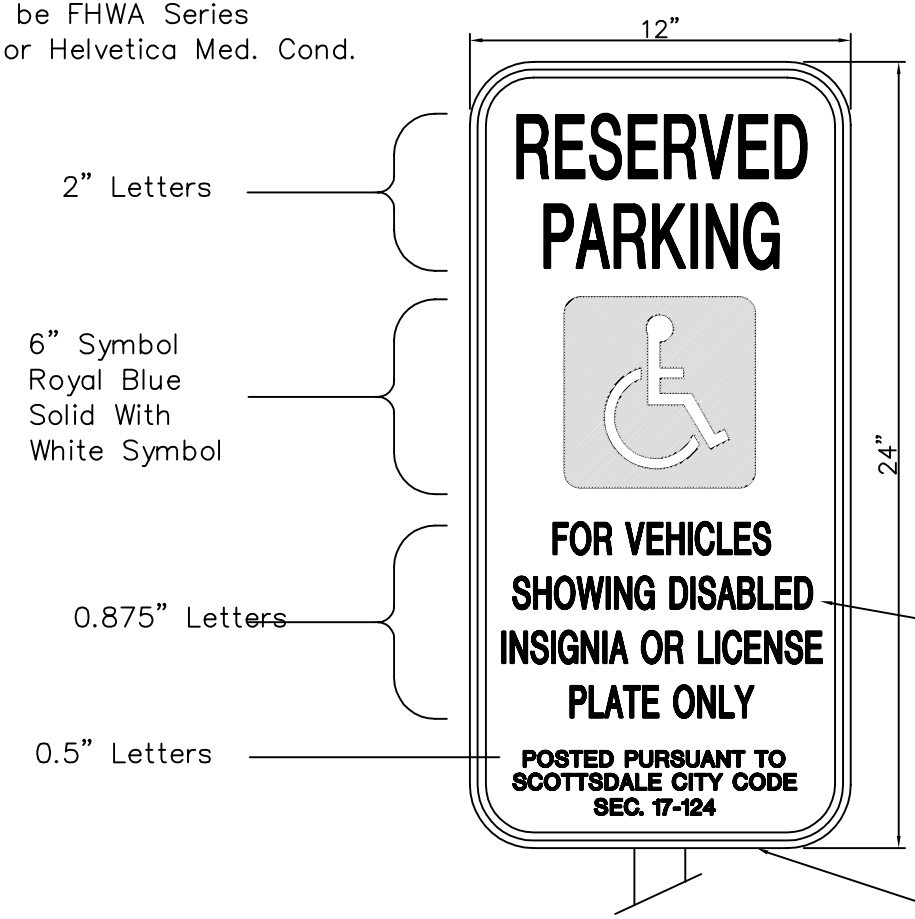


NOTE: * - Indicates New Or Revised Details For 2003 Supplement.

REVISED 8/11/03

NOTE:

Lettering shall be FHWA Series "B" alphabet, or Helvetica Med. Cond.




## MOUNTING OPTIONS (SEE PLANS)

A) Flexible P.E. Post With Surface Mount Base – Epoxy To Pavement Surface

B) Perforated Galvanized Tubing Per COS Detail 2131. Install In Landscape Areas Only.

C) Surface Mount To Structure

D) Mount As Detailed On Plans

Green Borders and Text, and Blue Symbol on White Retroreflective Background (Typ.)
Background: Super Engineer Grade Or High Intensity Sheeting
Copy: Same As Above
Substrate: 0.080 Gauge Treated Aluminum

Bottom Of Sign Shall Be Not Less Than 3 Feet Nor More Than 6 Feet Above Finish Surface

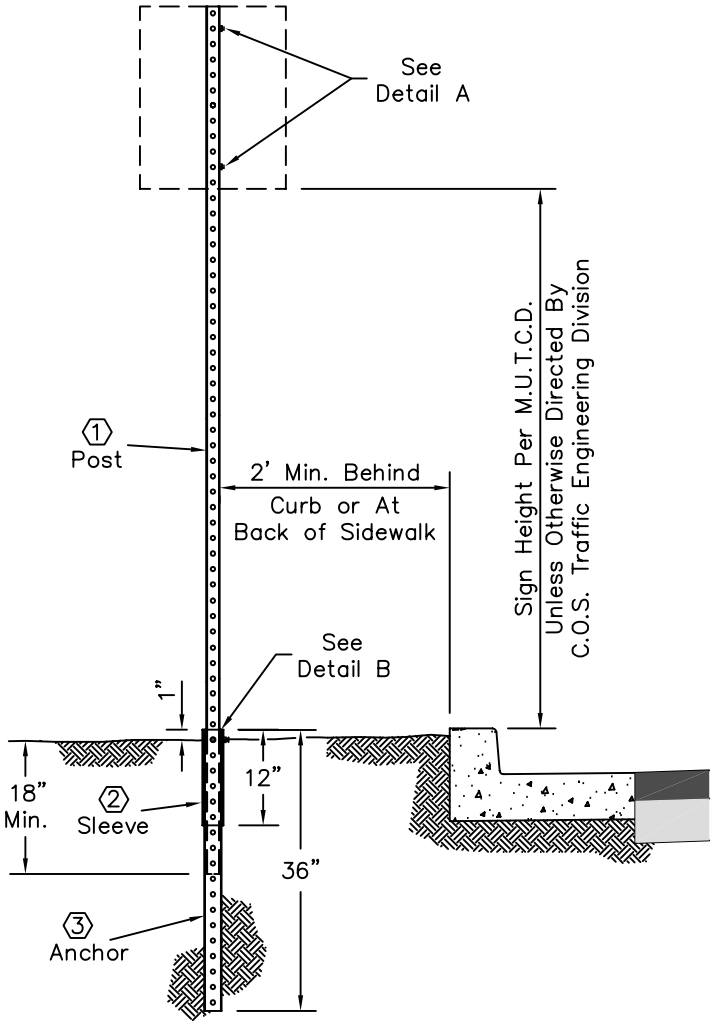
## ACCESSIBLE SIGNAGE

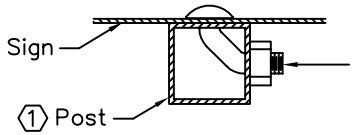
One Sign At Each Accessible Parking Stall

REVISED 2/26/01

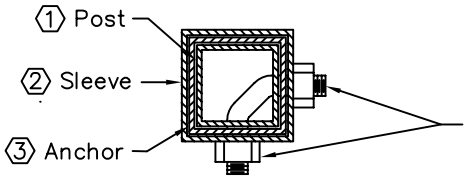
| DETAIL NO. 2124 | City of Scottsdale Standard Details | ACCESSIBLE SIGNAGE | DETAIL NO. 2124 |
|---|---|---|---|

REVISED 1/3/94




Detail A
Sign Mounting




Detail B
Anchor Assembly

## Legend

1 Post – 1–3/4" x 1–3/4" Square Perforated 0.105" Galvanized Steel Tubing (Green Finish)

2 Sleeve – 2–1/4" x 2–1/4" x 12", Square Perforated 0.105 Galvanized Steel Tubing (Green Finish)

3 Anchor – 2" x 2" x 36", Square Perforated 0.105" Galvanized Steel Tubing (Green Finish)

NOTE:

1. Sign Post, Sleeve And Anchor Per COS Supplemental Spec. Section 402.3

DETAIL NO. 2131

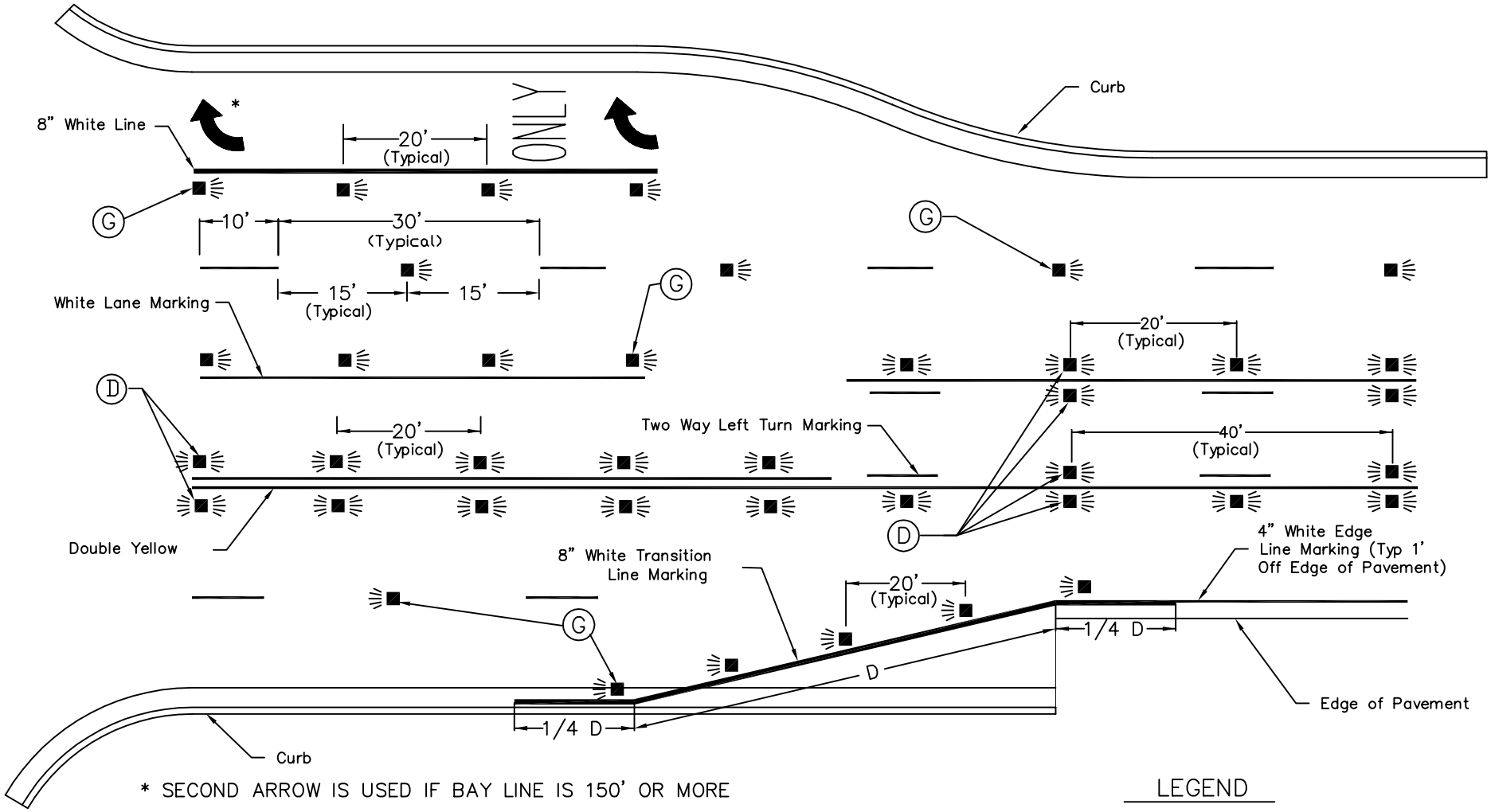
City of Scottsdale
Standard Details

APPROVED BY: _____

# SIGN POST INSTALLATION

DETAIL NO. 2131

REVISED 3/02/01




* SECOND ARROW IS USED IF BAY LINE IS 150' OR MORE

LEGEND

Ⓖ – TYPE "G" WHITE, ONE WAY REFLECTIVE

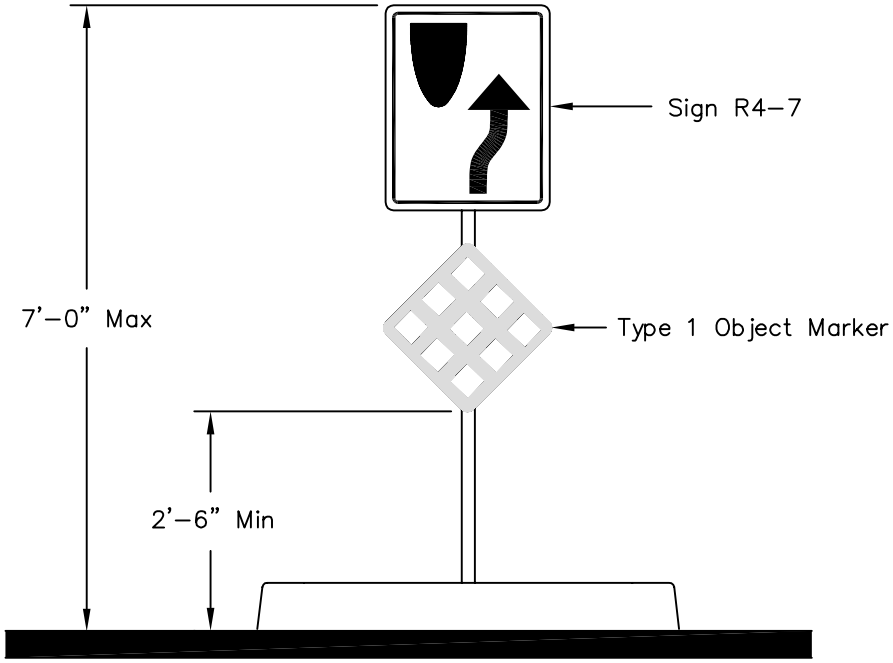
Ⓓ – TYPE "D" YELLOW, TWO WAY REFLECTIVE

REFERENCE ADOT STD DRAWINGS 4–M–2.03 AND 4–M–2.04

SEE STANDARD DETAIL 2363 FOR FIRE HYDRANT MARKERS

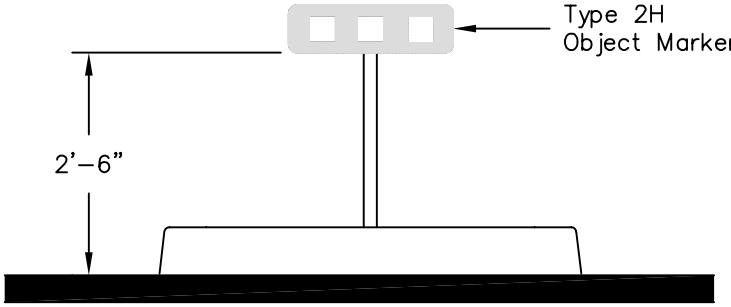
| DETAIL NO. 2132 | City of Scottsdale Standard Details | RAISED PAVEMENT MARKER LAYOUT | DETAIL NO. 2132 |
|---|---|---|---|

Revised 2/26/01




## TYPE "A"

(AT SIGNALIZED INTERSECTIONS
OR AS SHOWN ON PLANS AND FIRST &
LAST NOSE ON A STRING OF MEDIANS)




## TYPE "B"

(ALL OTHER MEDIANS)

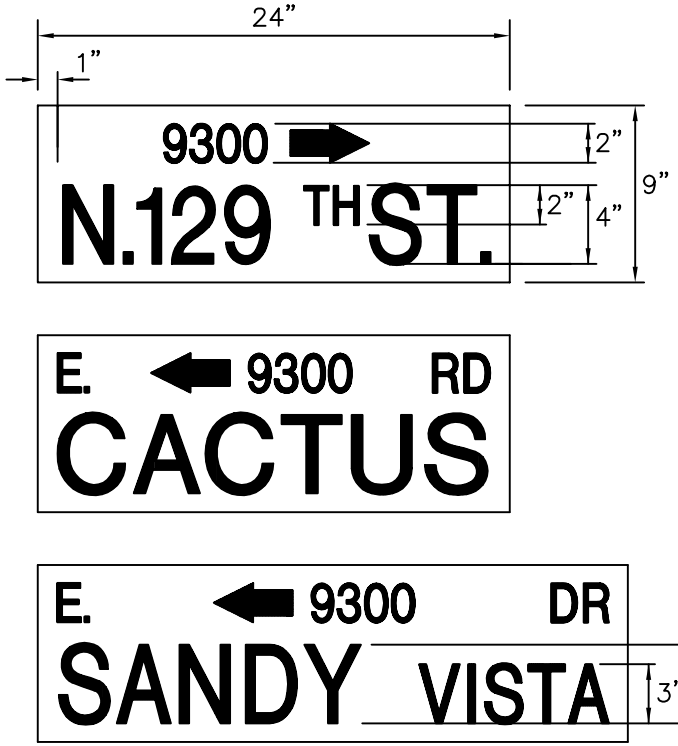
NOTES:

1. See COS Std Det 2225 Or 2226 For Typical Location.
2. Sign Posts Per COS Std Det 2131.

DETAIL NO. 2133 | City of Scottsdale Standard Details

# MEDIAN NOSE SIGNING–TYPE A&B

DETAIL NO. 2133

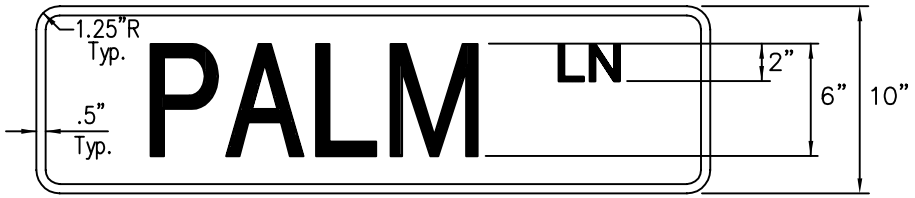


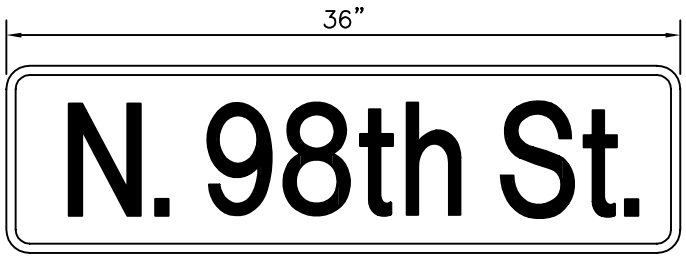

## TYPE A SIGNS

Type IIA Super Engineering Grade
Green/White (2 Sides)

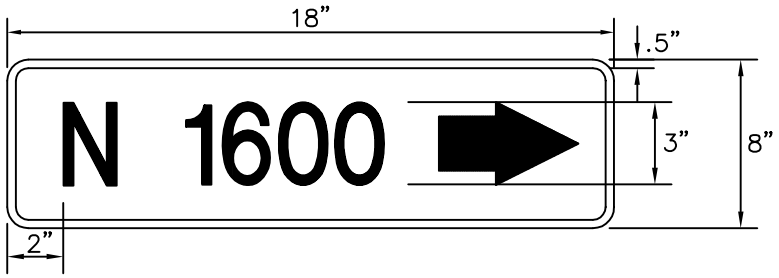
Blank Sizes: 9"x 24", 9"x 30",
9"x 36", 9"x 42"

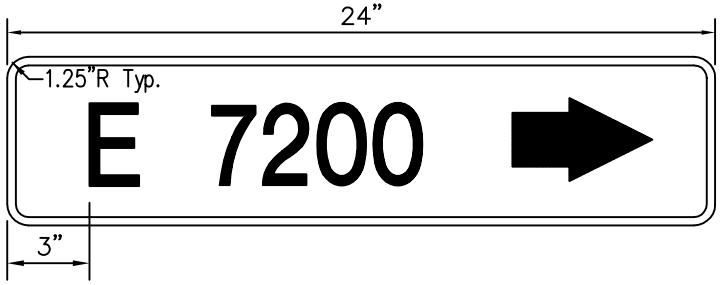
Intended Usage: Type "A" Street Name Signs shall be used in residential areas where Residential Streets interesect with Local Collector Streets. See the COS General Plan for Street Designations.








## TYPE B SIGNS

Type III High Intensity Grade
Green/White (2 Sides)
Blank Sizes: 10"x 36", 10"x 42"

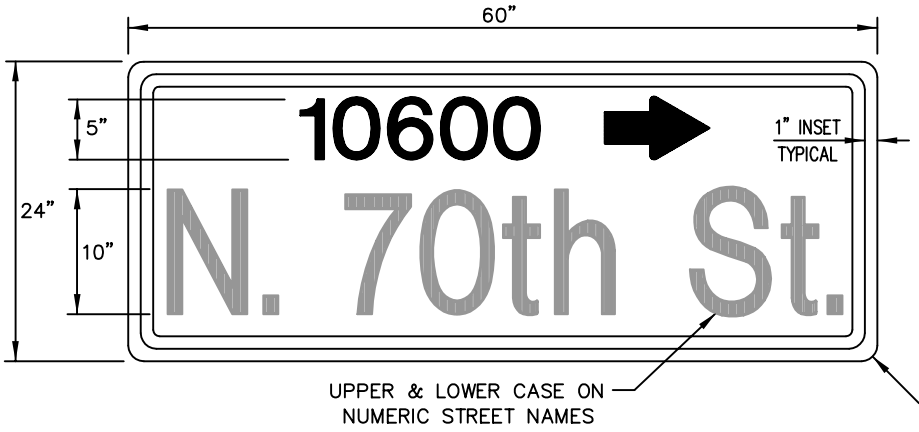
Intended Usage: Type "B" Street Name Signs shall be used where a Residential Street or a Local Collector Street interesects with a street with a classification of Major Collector or larger. See the COS General Plan for Street Designations.

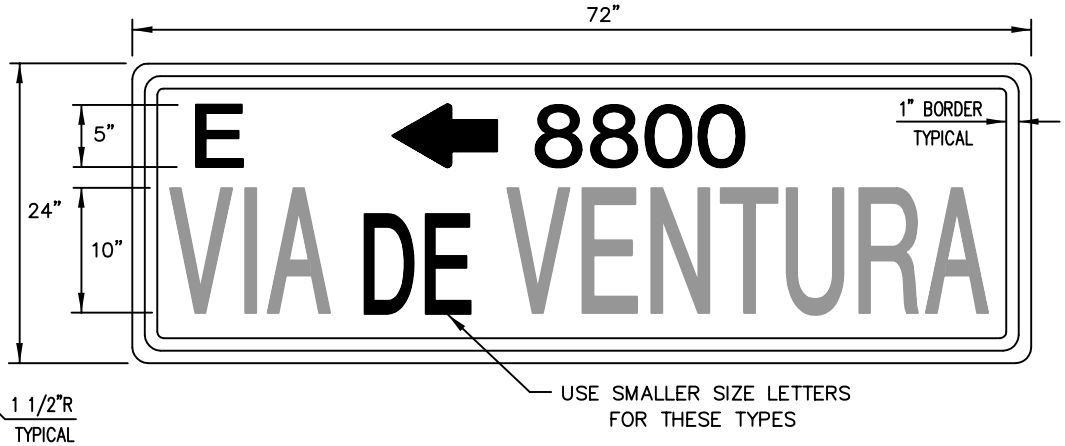
## TYPE B BLOCK NUMBERS

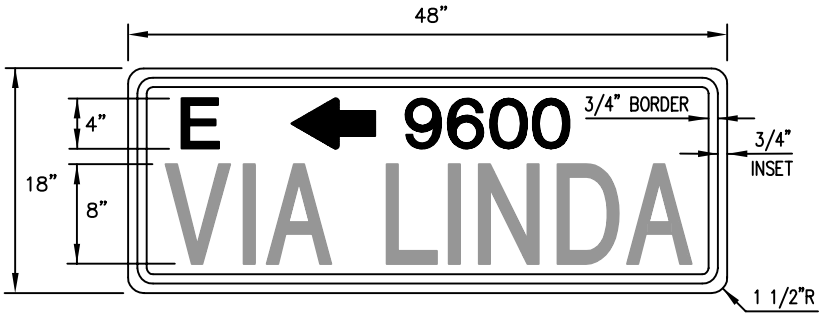
Type III High Intensity Grade
Green/White (1 Side)
Blank Sizes: 8"x 18", 8"x 24"

Type "B" Block Numbers to be mounted with Type "B" Street Name Signs.

| DETAIL NO. 2134-2 | City of Scottsdale Standard Details | STREET NAME SIGNS - TYPE B | DETAIL NO. 2134-2 |
|---|---|---|---|



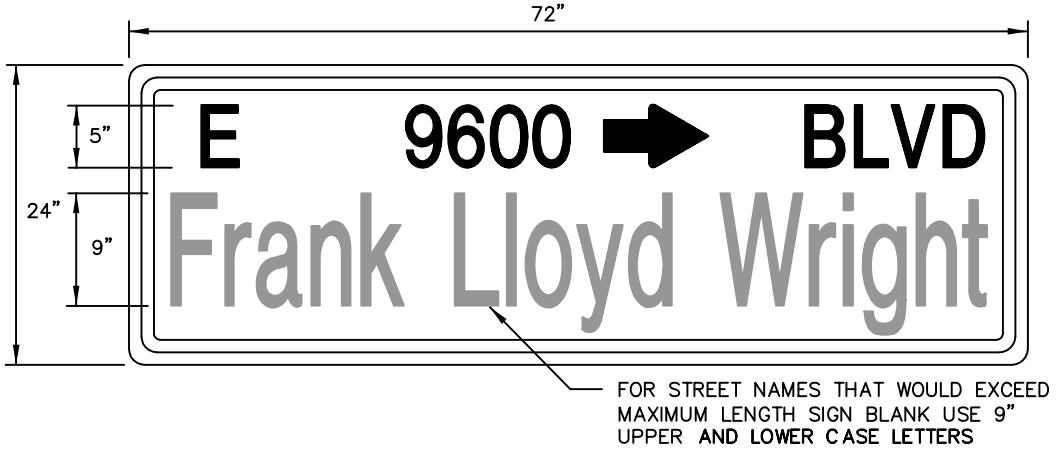




## 18" METRO SIGNS

Diamond Grade Intensity – Green/White (1 Side)
Typestyle = Highway Gothic, Modify C or D
Blank Sizes: 18"x 48", 18"x 60", 18" x 72"

Intended Usage: 18" Metro Street Name Signs shall be used on minor roads with a speed limit of 35MPH or lower. See the COS General Plan for Street Designations.

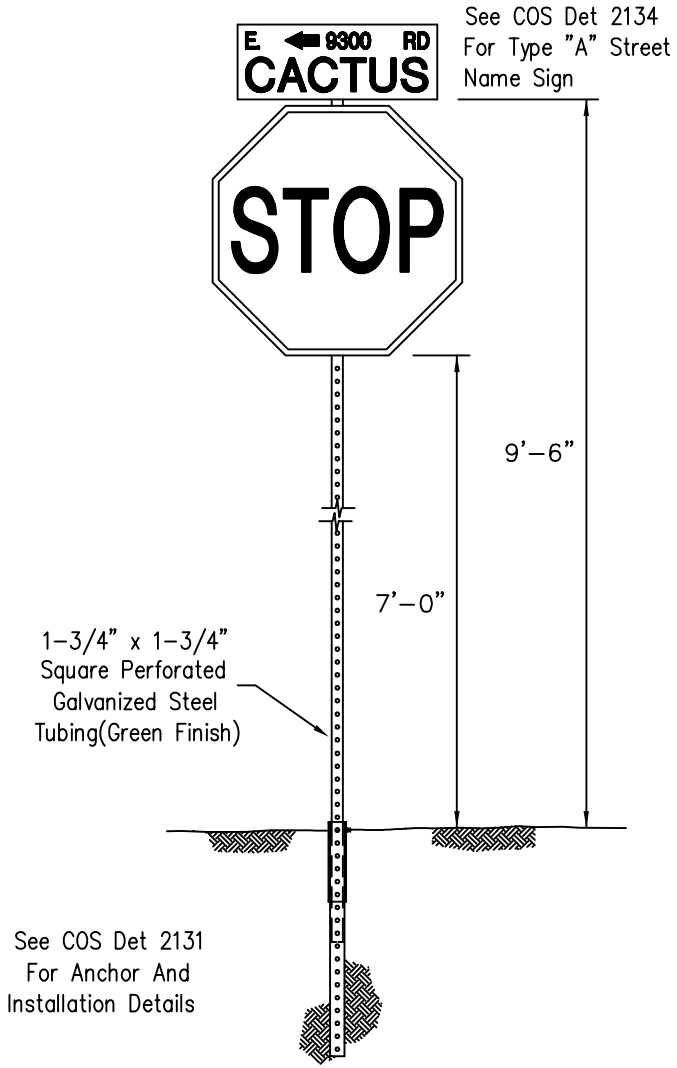



## 24" METRO SIGNS

Diamond Grade Intensity – Green/White (1 Side)
Typestyle = Highway Gothic, Modify C or D
Blank Sizes: 24"x 60", 24"x 72", 24" x 84"

Intended Usage: 24" Metro Street Name Signs shall be used on major roads with a speed limit of 35MPH or higher. See the COS General Plan for Street Designations.

| DETAIL NO. 2134-3 | City of Scottsdale Standard Details | STREET NAME SIGNS - 18" AND 24" METRO | DETAIL NO. 2134-3 |
|---|---|---|---|



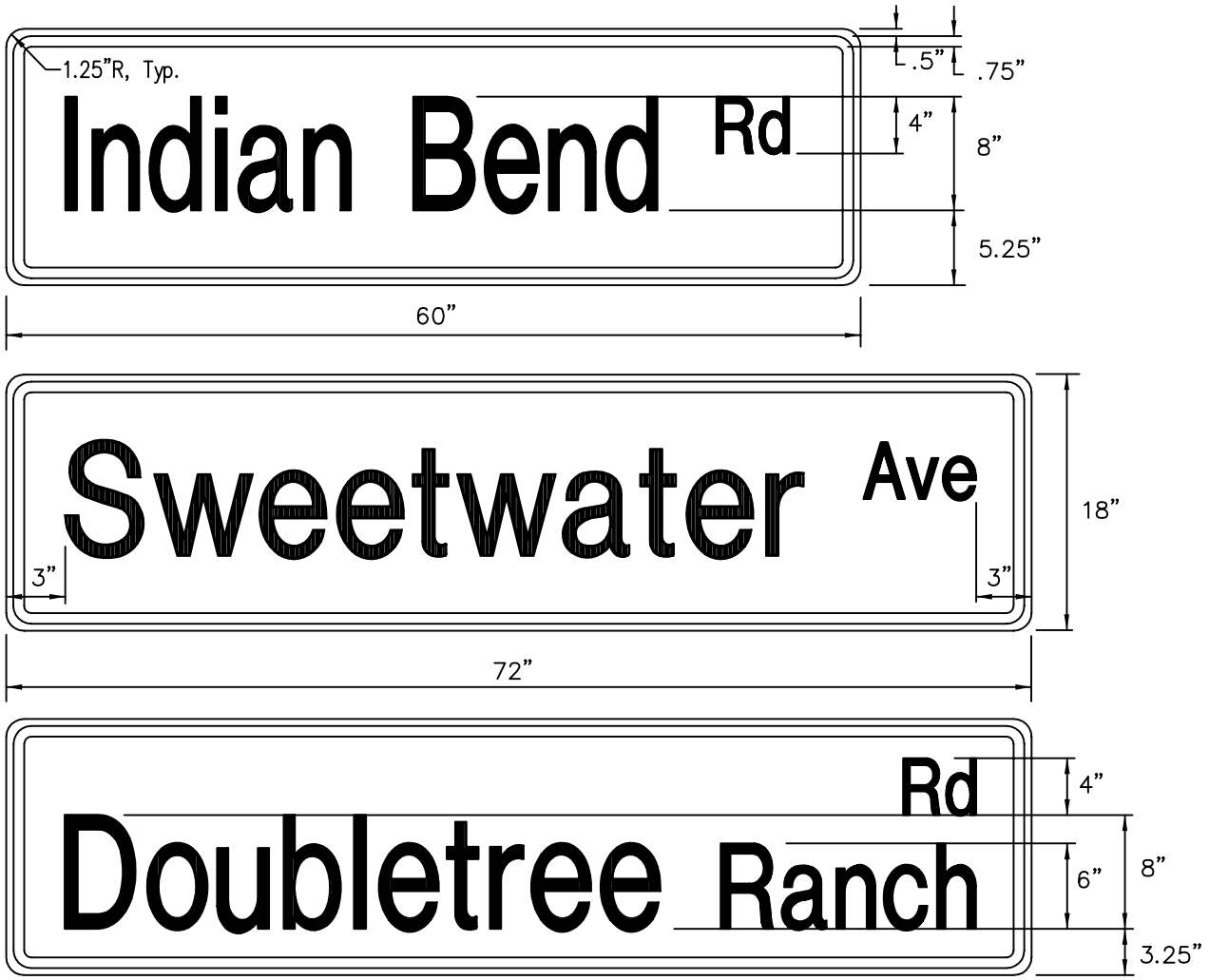

NOTES:

Street name sign and stop sign mounting height shall be measured from adjacent grade of sidewalk, top of curb or top of nearest pavement.

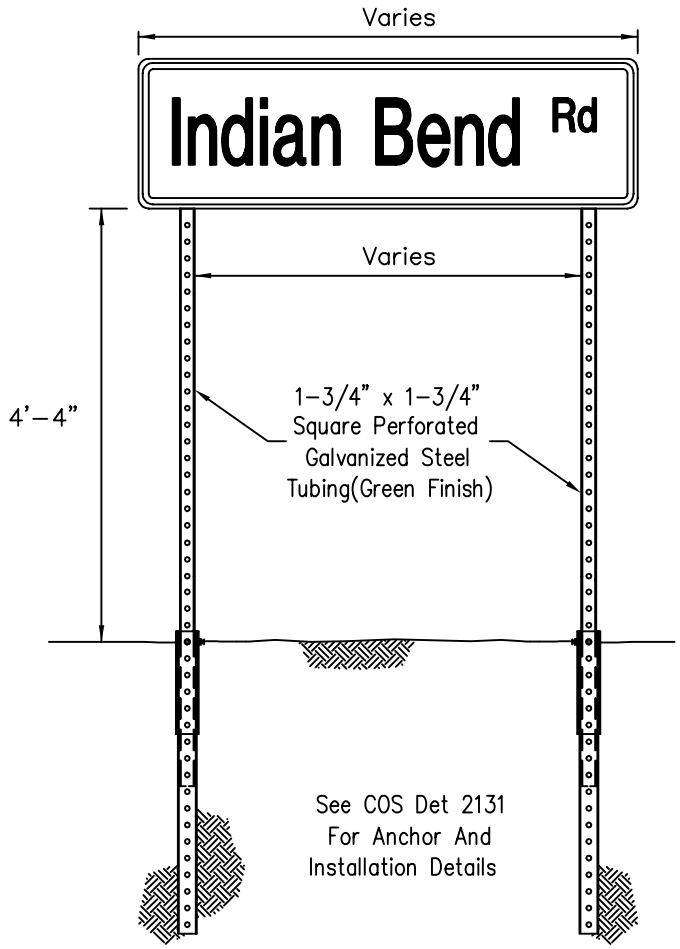
When no stop sign is required the street name sign is mounted at 9 feet 6 inches.

When two street name signs are mounted one on top of the other, the height is measured to the bottom sign.

| DETAIL NO. 2135 | City of Scottsdale Standard Details | STREET NAME SIGN INSTALLATION | DETAIL NO. 2135 |
|---|---|---|---|

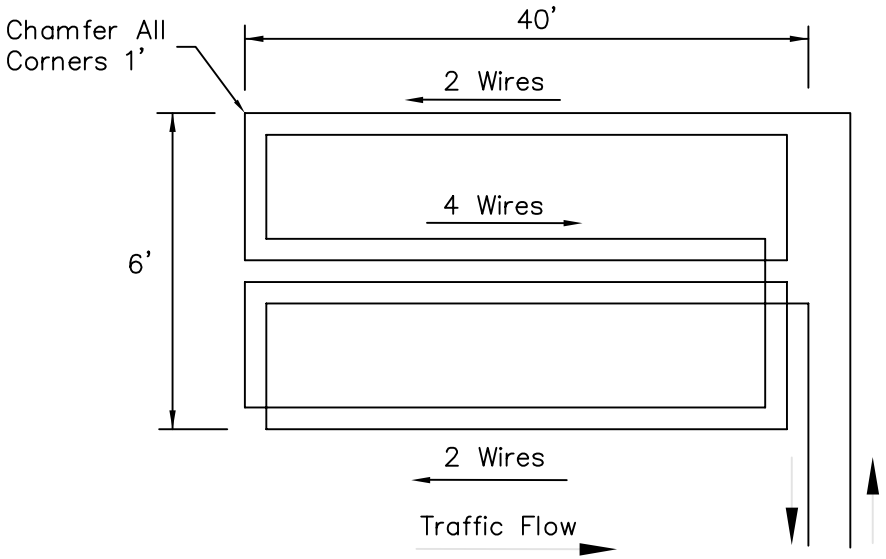



Type III High Intensity, Green/White (1 Side)
Blank Sizes: 18"x 48", 18"x 60", 18"x 72"

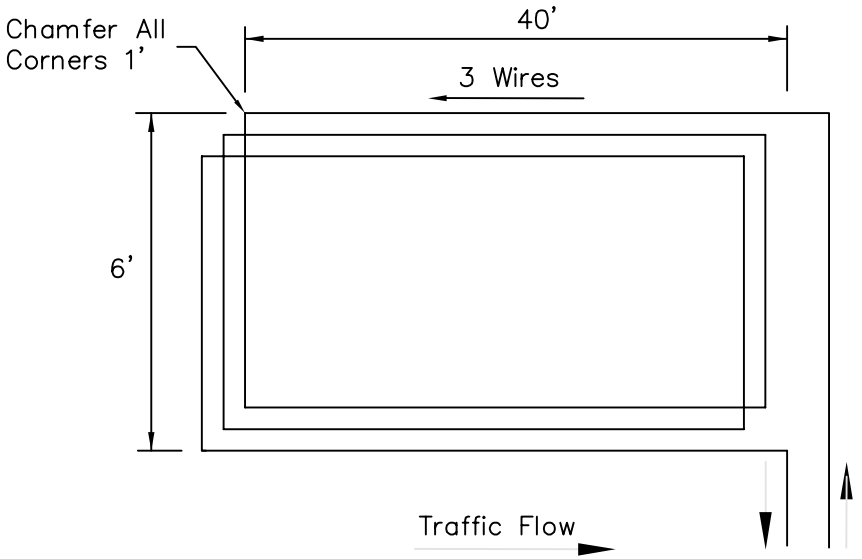



Intended Usage: To be used in advance of the specified street where an unsignalized collector street intersects a minor/major arterial or expressway. Location determined by multiplying the posted speed limit by 10. Sign is typically placed in a median when available, otherwise on the right hand side of the road.

| DETAIL NO. 2136 | City of Scottsdale Standard Details | ADVANCE STREET NAME SIGNS | DETAIL NO. 2136 |
|---|---|---|---|




**QUADRUPOLE LOOP DETECTOR**
**For Left Turn Lanes Only**

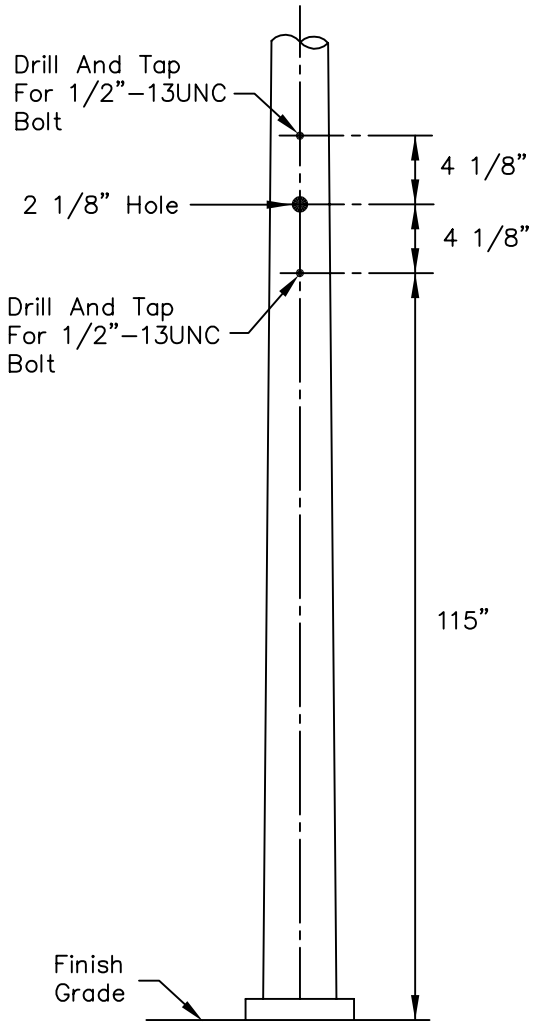



**STANDARD LOOP DETECTOR**

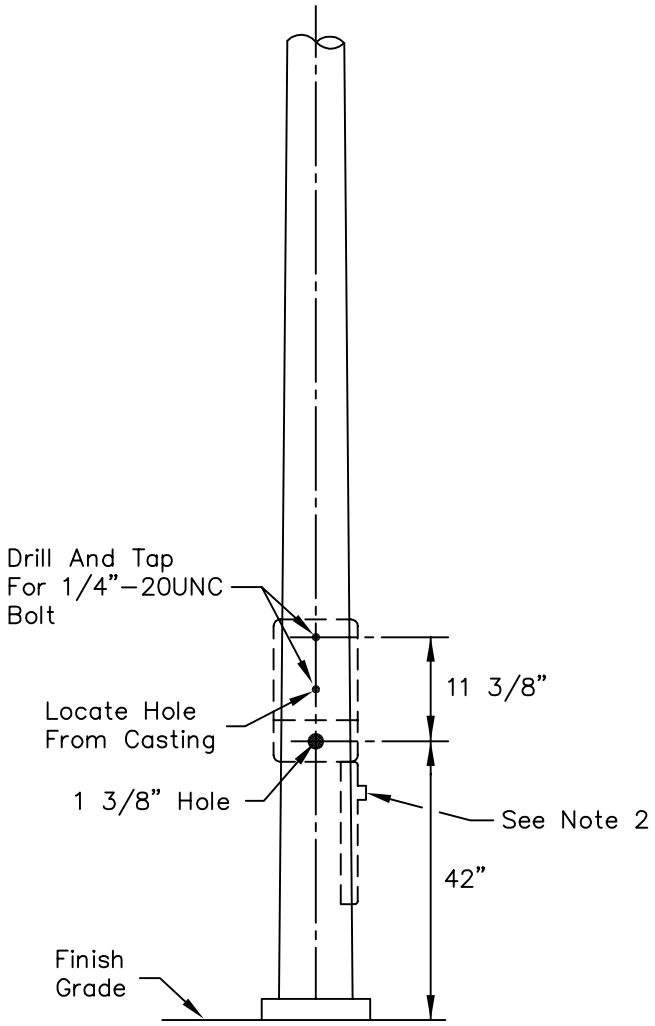
NOTES:

1. All loop detectors shall be wire–in–duct type wire. (Detect–a–Duct or approved equivalent, #14 stranded inside a 1/4" PVC tubing (IMSA 51–5).
2. All loop detectors shall be centered in the middle of the applicable traffic lane. Loop shall be sufficiently dimensioned on the plans. Loop detectors shall extend five feet into the crosswalk unless directed otherwise by the Traffic Engineering Department.
3. A rectangular loop with 3 turns (6 feet x 40 feet) shall be used for all through lanes.
4. A quadrupole loop with 2 outside turns and 4 inside turns (6 feet x 40 feet) shall be used in all exclusive left–turn lanes. (Wire in middle cut shall run the same direction.
5. Loop detectors shall not be installed in exclusive right turn lanes.
6. The location of permanent count detector loops shall be specified by the Traffic Engineering Department. Count detector loops shall consist of a minimum of 4 turns (6 feet x 6 feet).
7. Pre–formed loop detectors conforming to the latest ADOT specifications shall be used under decorative pavement, "pavers", concrete, or other "special" roadway surfaces, or as directed by the Traffic Engineering Department.
8. Lead–in cable between loop wire and controller shall be latest ADOT specification or approved equivalent (IMSA 50–2).
9. Loop lead–in and splices in pull box shall be twisted and soldered. Griggs Loop Detector Sealant, 3–M Loop Sealant, or approved equivalent shall be used.
10. Loops shall be installed prior to the installation of the final pavement lift (if part of a paving project).
11. Loops shall be inspected and tested prior to acceptance by the City.
12. See ADOT TS 7–1 for installation details.

| DETAIL NO. 2137 | City of Scottsdale Standard Details | LOOP DETECTORS | DETAIL NO. 2137 |
|---|---|---|---|




**SIDE MOUNT DRILLING DETAIL**




**PUSH BUTTON DRILLING DETAIL**

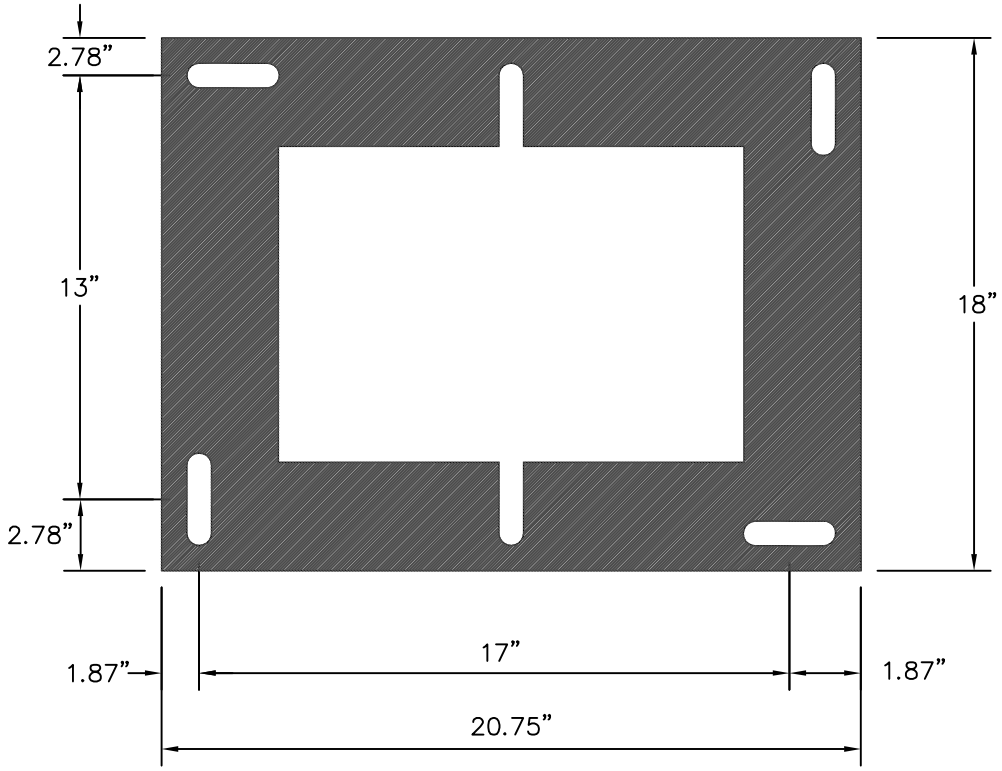
NOTES:

1. Drilling of pole to be oriented according to pole layout, or as directed by C.O.S. Engineer in the field.
2. When two pedestrian push button assemblies are mounted on a small diameter pole the lower assembly shall be positioned upside down so that the push button is at the top and the sign is below.
3. Top mounting holes to be field drilled in order to allow for manufacturing variations.
4. Push button shall be A.D.A large target style (ADOT Type I).

DETAIL NO. 2138 | City of Scottsdale Standard Details

# SIGNAL POLE DRILLING DETAIL

DETAIL NO. 2138




INSIDE VIEW OF BOTH
SIDES OF BASE EXTENDER

1. Model 330 cabinet base extenders will include cutouts that will accommodate replacement with all other Scottsdale 330 cabinets and model 336S. These base extenders are available from the cabinet manufacturer. All Scottsdale cabinets are foundation mounted.
2. Foundation must include a 4" x 24" x 24" concrete pad in front of the cabinet door.
3. The cabinet shall be mounted in such a way that when the technician has the door open and is facing the cabinet, he is also facing the intersection.
4. Cabinet base extender shall have a 12" x 12" removable access panel. Base extender shall be installed so that access panel is on door side of cabinet.

| DETAIL NO. 2139 | City of Scottsdale Standard Details | TRAFFIC SIGNAL CONTROLLER CABINET BASE EXTENDER | DETAIL NO. 2139 |
|---|---|---|---|

## LOOP AND PEDESTRIAN PUSH BUTTON INPUTS

| Slot 1 | Slot 2 | Slot 3 | Slot 4 | Slot 5 | Slot 6 | Slot 7 | Slot 8 | Slot 9 | Slot 10 | Slot 11 | Slot 12 | Slot 13 | Slot 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 AB Ph 1 | 3 AB Ph 2 | 5 AB Ph 3 | 7 AB Ph 4 | 9 AB Ph 5 | 11 AB Ph 6 | 13 AB Ph 7 | 15 AB Ph 8 | 17 AB 2 PPB | 19 AB 4PPB | 21 AB RRPre | 23 AB AdvEn | 25 AB EV A | 27 AB Stop Time |
| 2 AB Ph 1 | 4 AB Ph 2 | 6 AB Ph 3 | 8 AB Ph 4 | 10 AB Ph 5 | 12 AB Ph 6 | 14 AB Ph 7 | 16 AB Ph 8 | 18 AB 6 PPB | 20 AB 8PPB | 22AB Flash | 24 AB Adv | 26 AB EV B | 28 AB 6 Call |
| Det Loops | Det Loops | Det Loops | Det Loops | Det Loops | Det Loops | Det Loops | Det Loops | Ped Push Buttons | Ped Push Buttons | ------- | ------- | Pre-Empt | Slot 14 ------- Slot 14 |

1. All Scottsdale model 330 cabinet input racks have 14 slots.
2. Slots 1–8 are for vehicle detector loops.
3. Phase 4 loops are terminated on slot 4 (7A&B and/or 8A&B).
4. Phase 4 pedestrian push button is terminated on 19A and ppb neutral on 19B.
5. 19B shall have a jumper to the neutral bar.
6. All two phase intersections are to be wired to phases 2 and 4.
7. Field output wiring for 2 phase signals shall be wired to 2R, 2Y, 2G and 4R, 4Y, 4G.
8. Ped field wiring shall be wired to 9R, 9G (Phase 2 Ped) and 10R, 10G (Phase 4 Ped).
9. Call COS Traffic Signals (480)312–5635 prior to wiring cabinet for instructions for intersections with more than 2 phases.

## MAIN DIRECTIONS

| Direction | Color |
|---|---|
| WB | Blue |
| EB | Green |
| NB | Red |
| SB | Yellow |

## LEFT TURN DIRECTIONS (Main Color + White)

| Direction | Color |
|---|---|
| WBLT | Blue + White |
| EBLT | Green + White |
| NBLT | Red + White |
| SBLT | Yellow + White |

## RIGHT TURN DIRECTIONS (Main Color + Black)

| Direction | Color |
|---|---|
| WBRT | Blue + Black |
| EBRT | Green + Black |
| NBRT | Red + Black |
| SBRT | Yellow + Black |

## Color Of Wire For Power/Neutrals/Pushbuttons

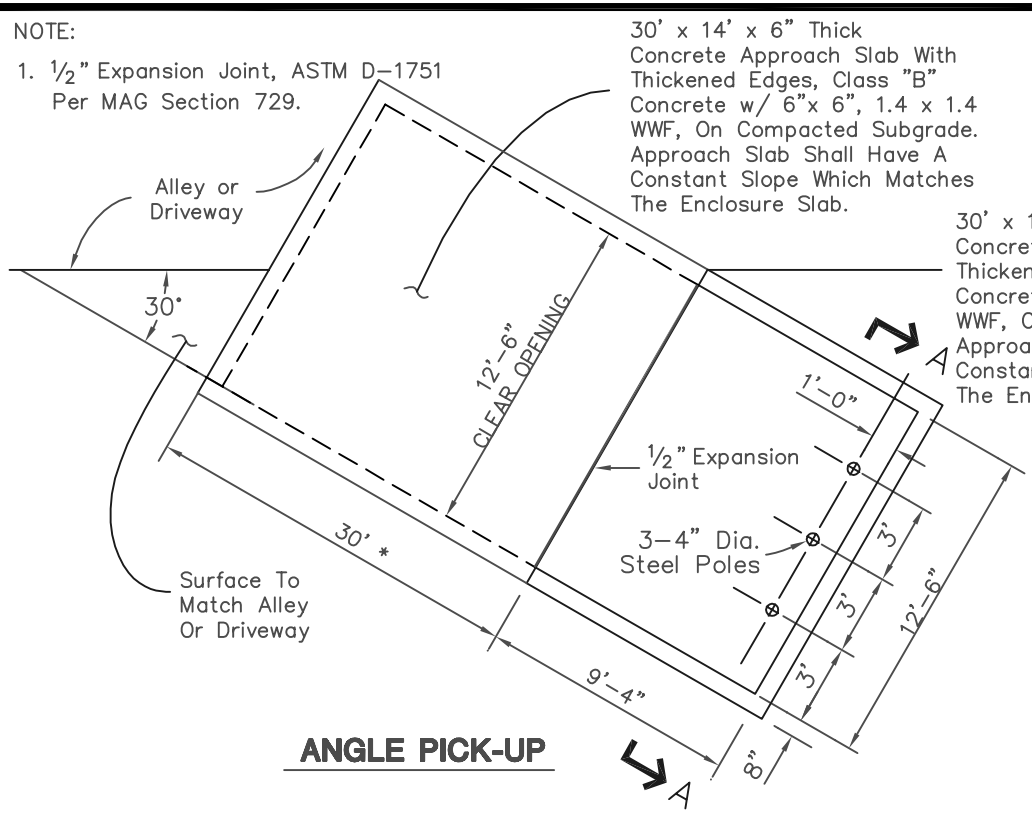
| Wire | Color |
|---|---|
| AC+ Power | Black |
| AC- (Neutral) | White |
| 24V Pushbutton | Orange, Stranded |

WBLT = West Bound Left Turn and shall be the phase for vehicles facing west and turning to south
EBLT = East Bound Left Turn and shall be the phase for vehicles facing east and turning to north
NBLT = North Bound Left Turn and shall be the phase for vehicles facing north and turning to west
SBLT = South Bound Left Turn and shall be the phase for vehicles facing south and turning to east

WBRT = West Bound Right Turn and shall be the phase for vehicles facing west and turning to north
EBRT = East Bound Right Turn and shall be the phase for vehicles facing east and turning to south
NBRT = North Bound Right Turn and shall be the phase for vehicles facing north and turning to east
SBRT = South Bound Right Turn and shall be the phase for vehicles facing south and turning to west

NOTE:

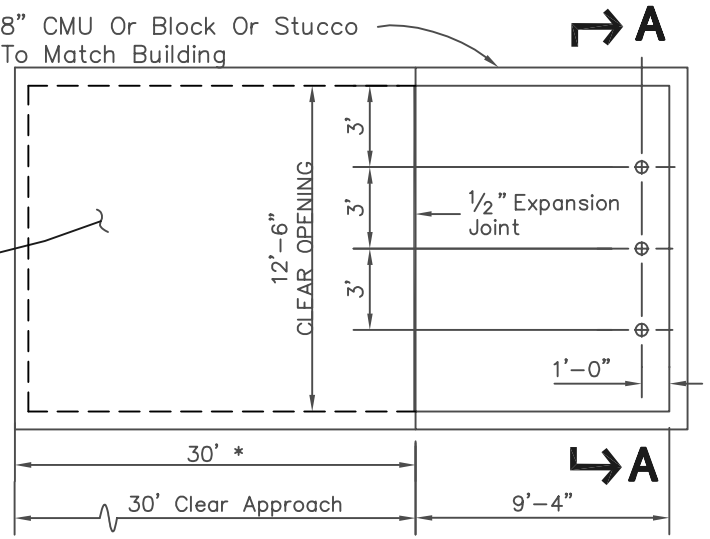
1. ½" Expansion Joint, ASTM D–1751 Per MAG Section 729.



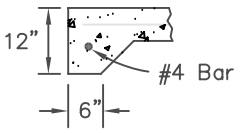

30' x 14' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Concrete w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

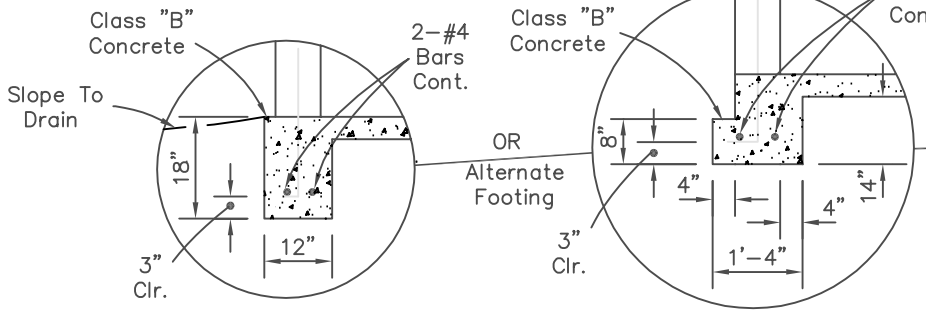
## ANGLE PICK-UP

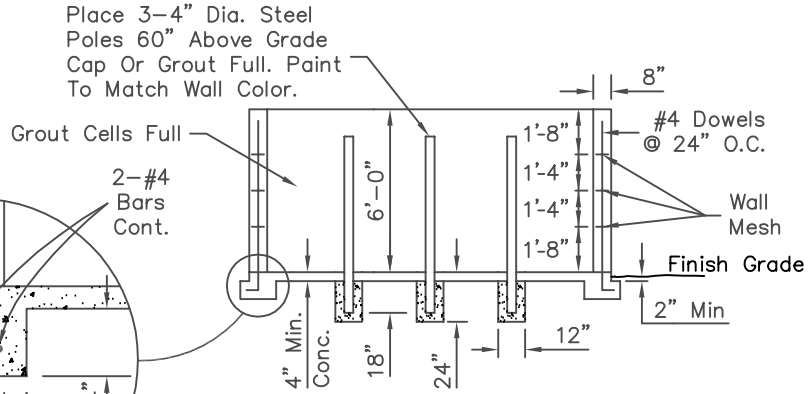



## HEAD ON PICK-UP




## APPROACH SLAB THICKENED EDGE DETAIL




## SECTION A-A

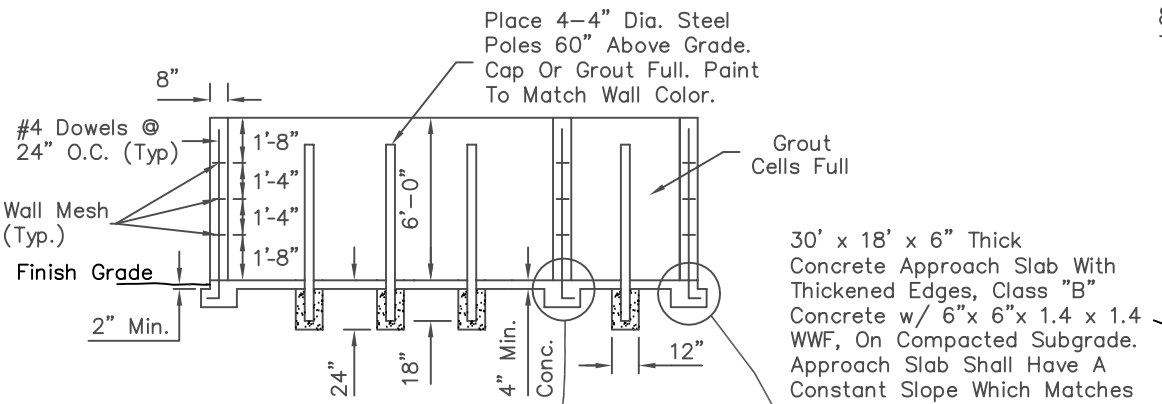
REVISED 5/9/02

DETAIL NO. 2146-1

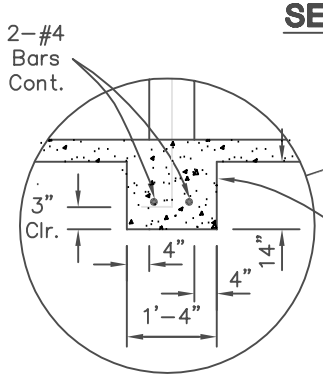
**City of Scottsdale Standard Details**

# REFUSE ENCLOSURE

DETAIL NO. 2146-1




## SECTION A-A




30' x 18' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Concrete w/ 6"x 6"x 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

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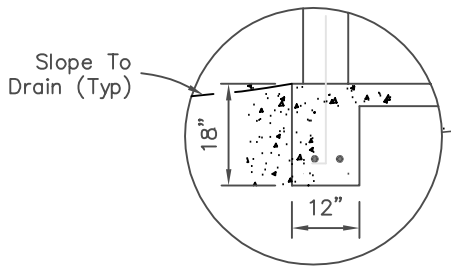
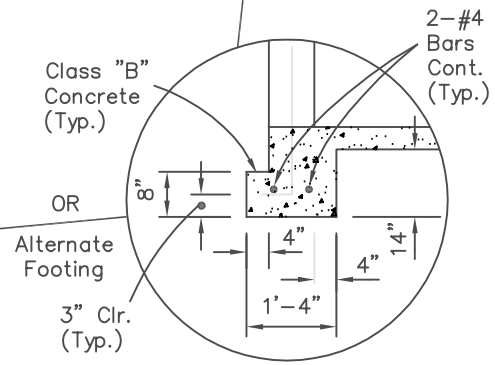
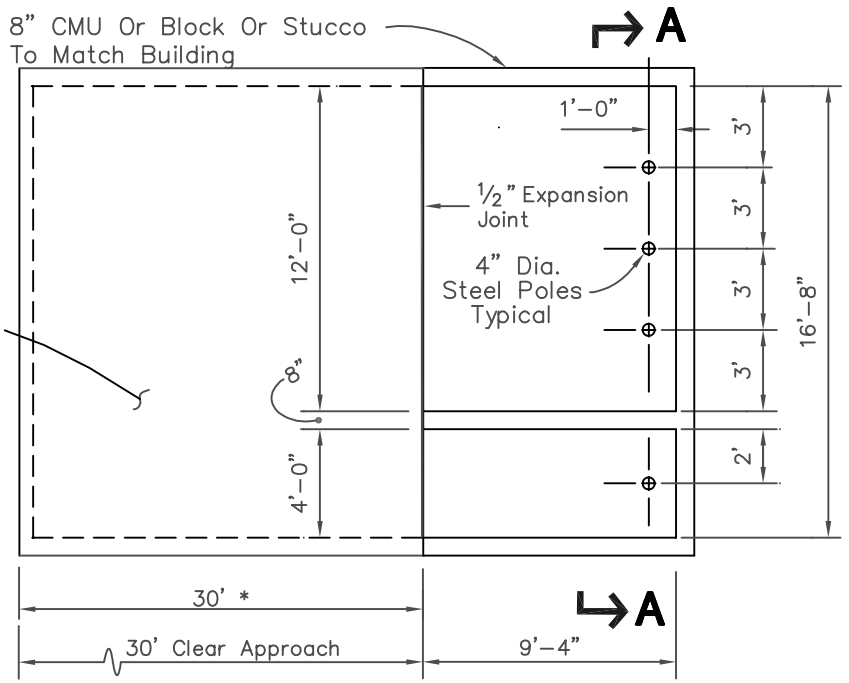


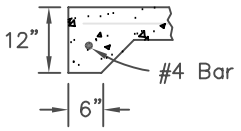

OR

Alternate Footing




## PLAN




## APPROACH SLAB THICKENED EDGE DETAIL

NOTES:

1. Enclosure For Angle Pick–up Similar To COS Detail 2146–1
2. ½" Expansion Joint, ASTM D–1751 Per MAG Section 729.

REVISED 5/9/02

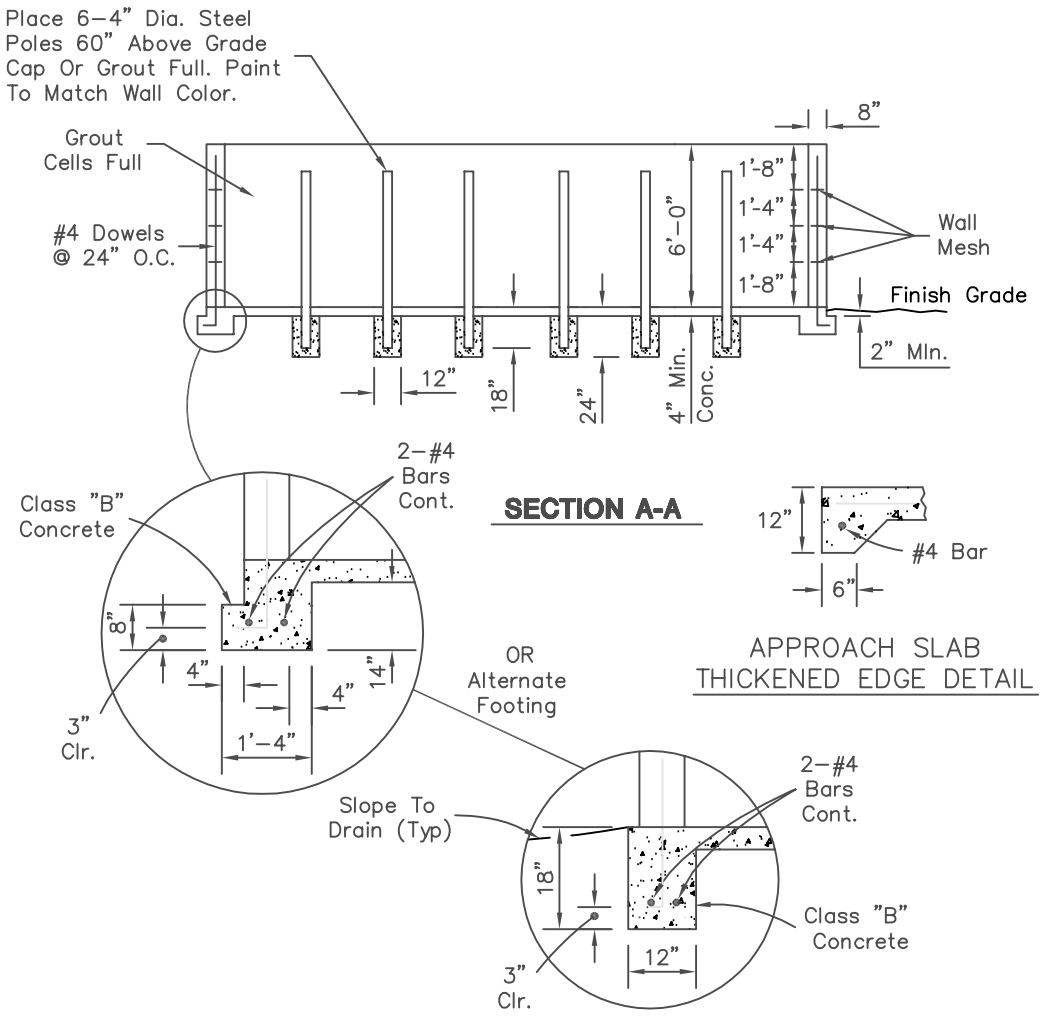
DETAIL NO. 2146-2

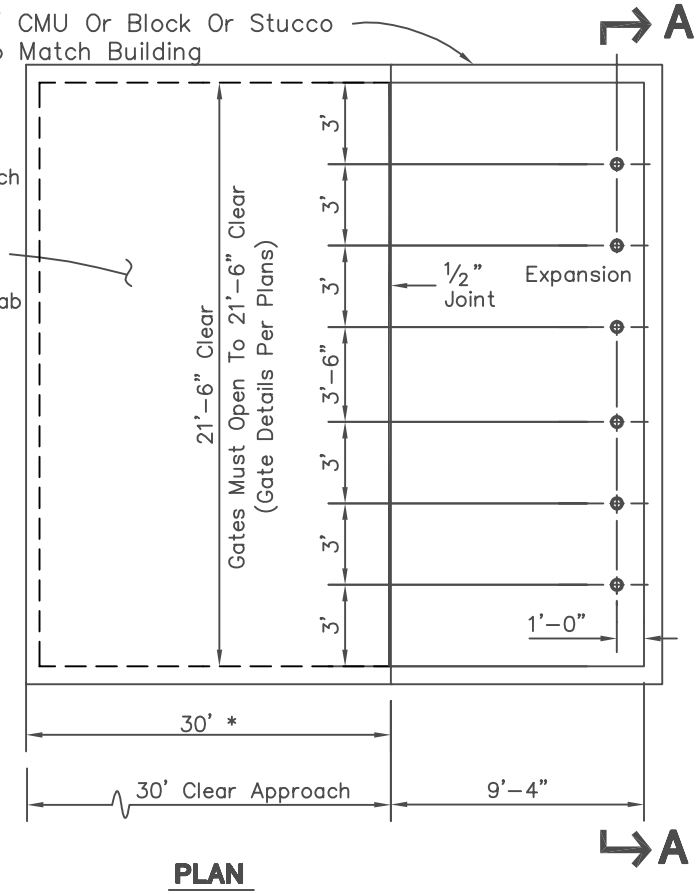
City of Scottsdale Standard Details

# REFUSE ENCLOSURE W/ GREASE CONTAINMENT AREA

DETAIL NO. 2146-2

REVISED 5/9/02




PLAN

NOTE:

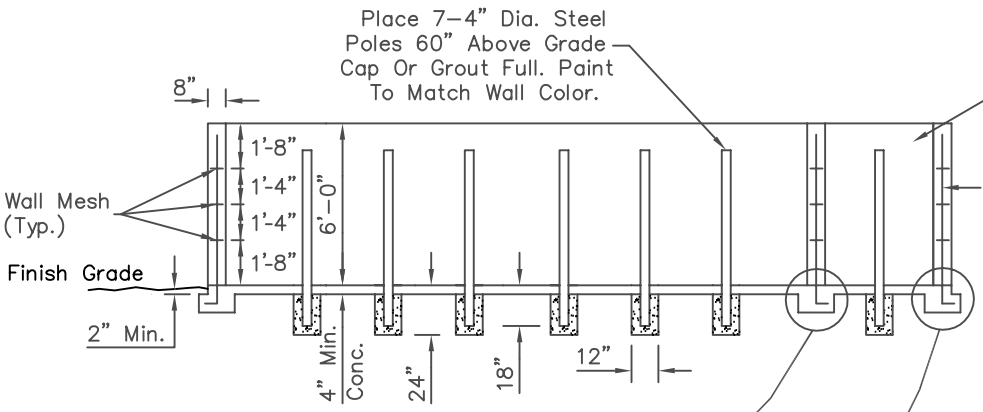
1. Double Enclosure For Angle Pick–Up Similar To COS Det. 2146–1
2. 1/2" Expansion Joint, ASTM D–1751 Per MAG Section 729.

DETAIL NO. 2147-1

**City of Scottsdale Standard Details**

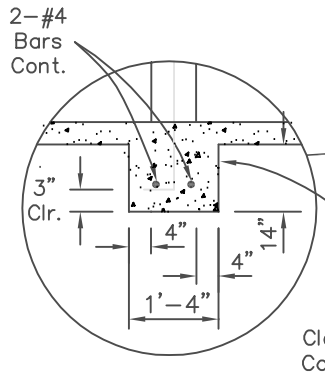
# DOUBLE REFUSE ENCLOSURE

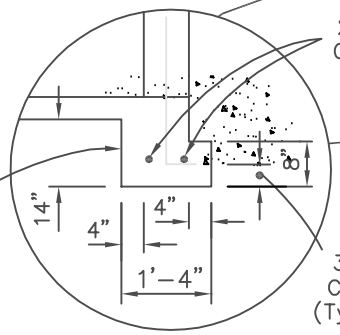
DETAIL NO. 2147-1



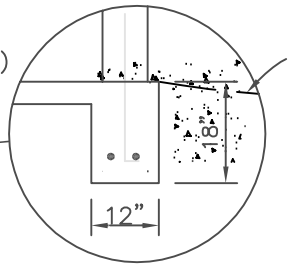

**SECTION A-A**

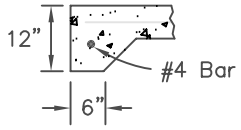
30' x 27.5' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Conc. w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.




OR Alternate Footing

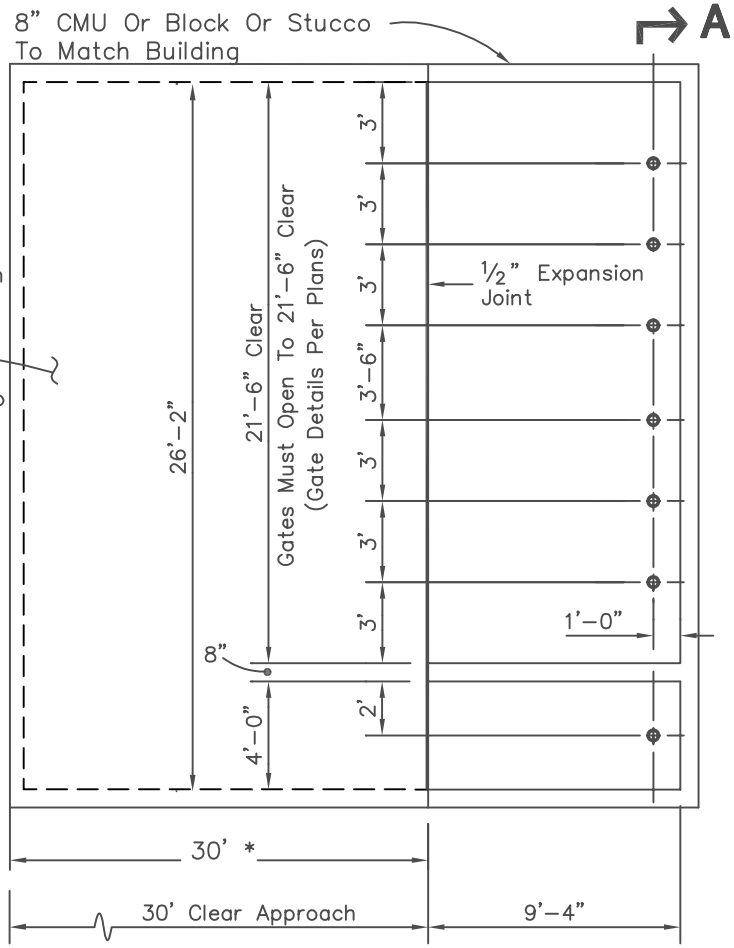



**APPROACH SLAB THICKENED EDGE DETAIL**

NOTES:

1. Double Enclosure For Angle Pick–Up Similar To COS Det. 2146–1
2. ½" Expansion Joint, ASTM D–1751 Per MAG Section 729.




**PLAN**

* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

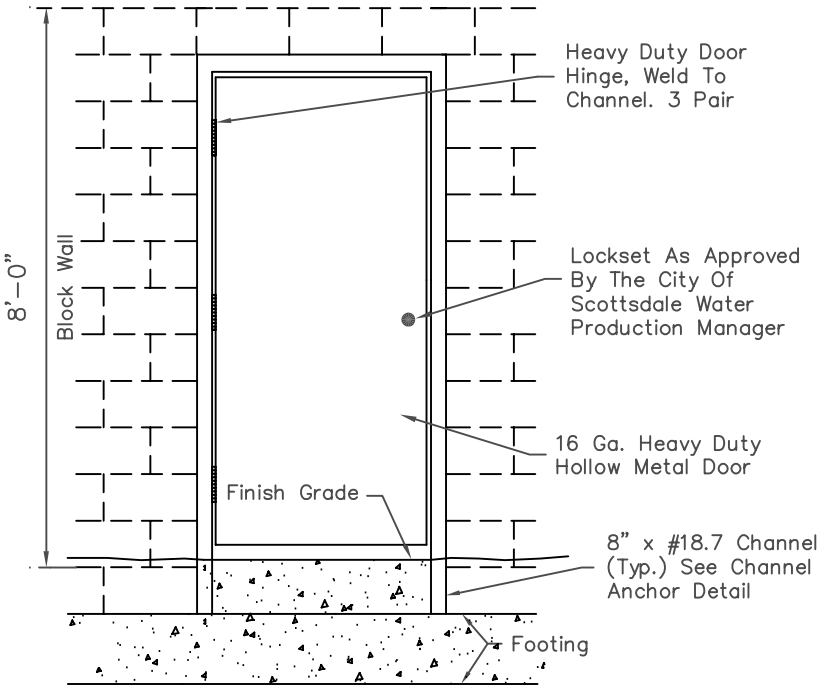
REVISED 5/9/02

DETAIL NO. 2147-2 | City of Scottsdale Standard Details

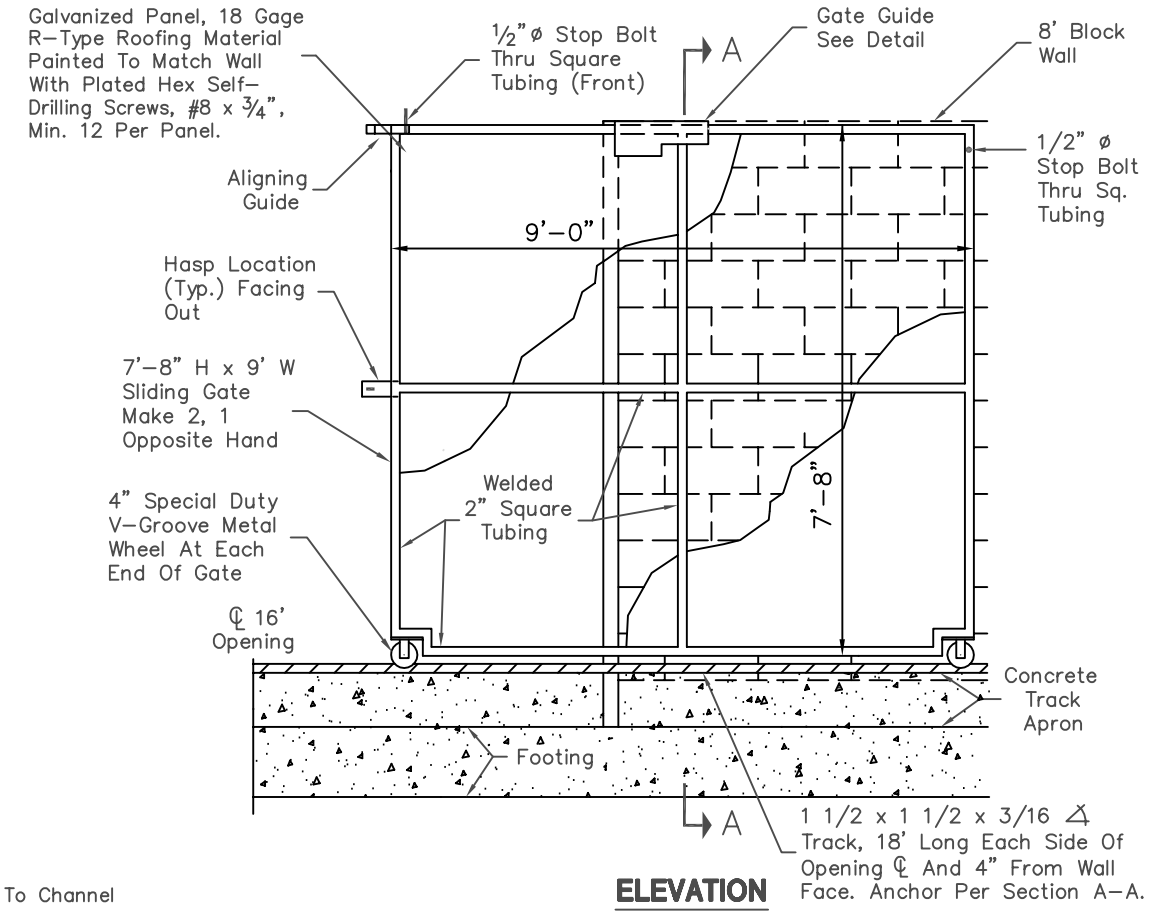
# DOUBLE REFUSE ENCLOSURE W/ GREASE CONTAINMENT AREA

DETAIL NO. 2147-2

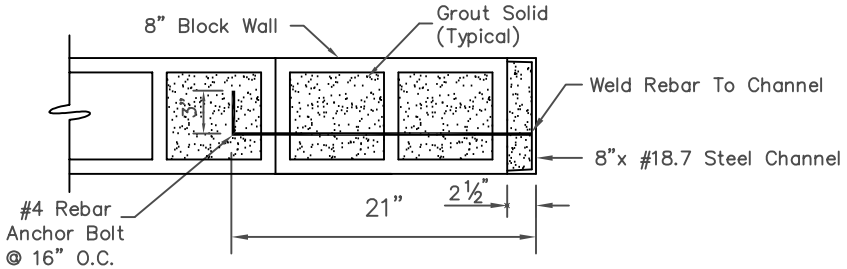
REVISED 1/5/00



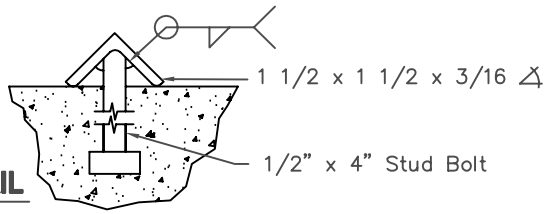

**HINGED DOOR**




**ELEVATION**




**CHANNEL ANCHOR DETAIL**




**TRACK DETAIL**

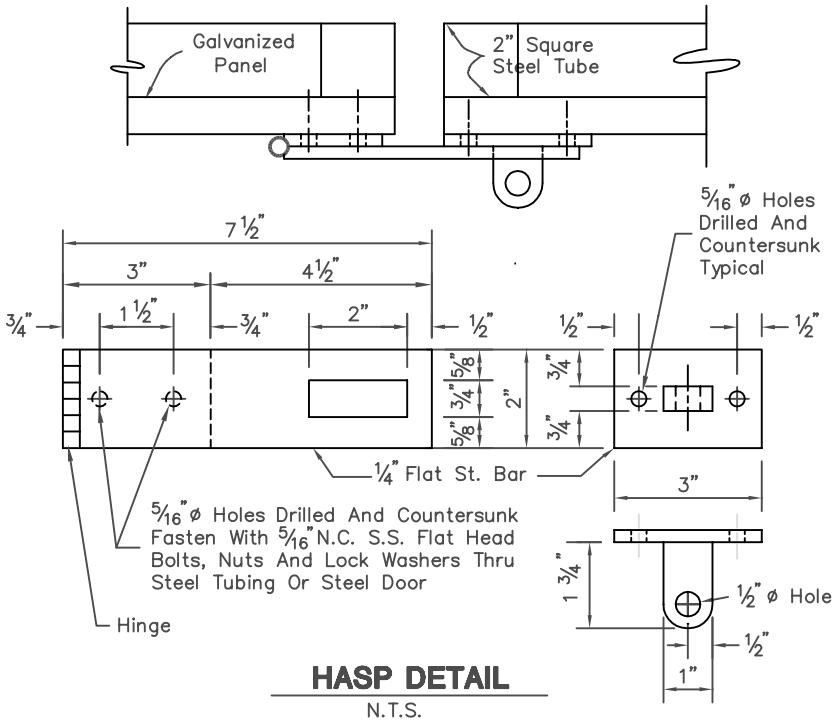
DETAIL NO. 2165-1

**City of Scottsdale Standard Details**

# 16' SLIDING GATE & HINGED DOOR

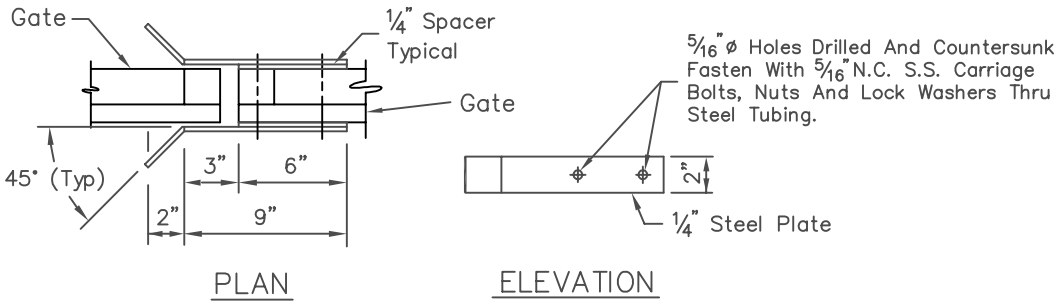
DETAIL NO. 2165-1

REVISED 3/15/99



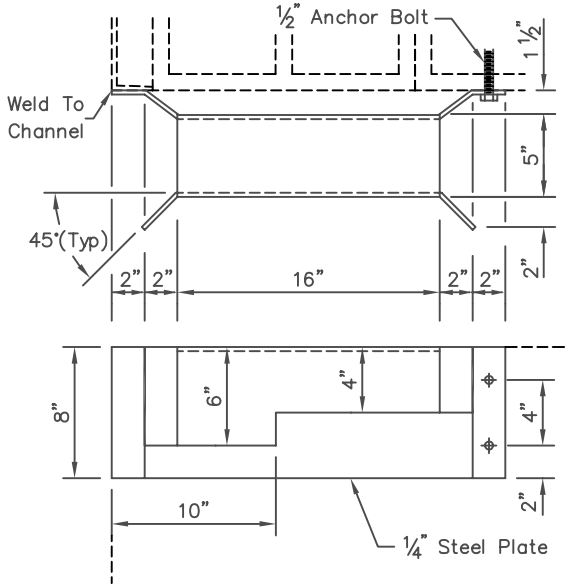

## HASP DETAIL

N.T.S.



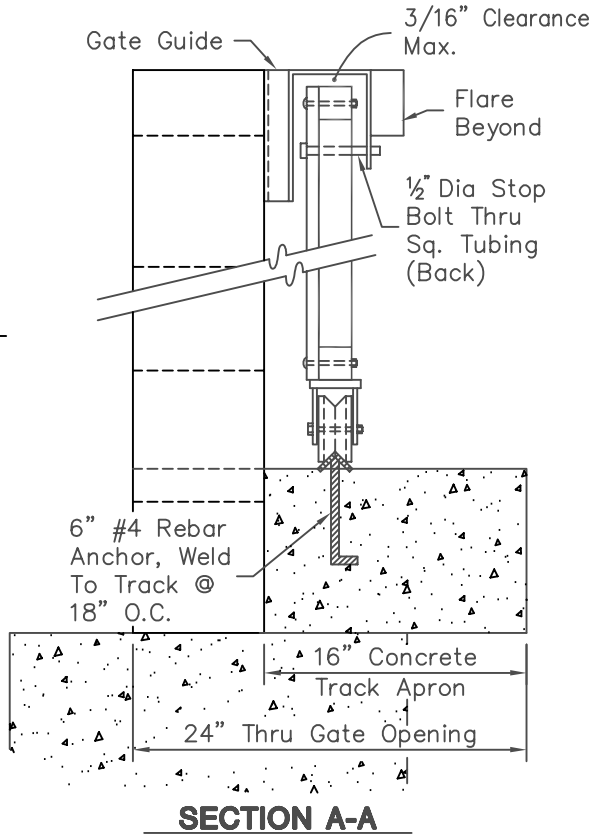

## ALIGNING GUIDE DETAIL

2 Required




## GATE GUIDE DETAIL

(Make 2, 1 Opposite Hand)




## SECTION A-A

NOTES:

1. Contractor shall prime and paint all metal surfaces. Before application, the color and manufacturer of the paint shall be approved by the City.
2. Prior to painting, all surfaces shall be cleaned free of concrete, mortar, rust, dirt and any other objectionable materials.
3. Apply one (1) primer coat and two (2) exterior alkyd gloss enamel coats to metal.

| DETAIL NO. 2165-2 | City of Scottsdale Standard Details | APPROVED BY: | 16' SLIDING GATE | DETAIL NO. 2165-2 |
|---|---|---|---|---|